# **D-Link**®

# DI-3660 Router Installation Guide

Rev.1 (April 2003)



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Power Supplies and Fans	One (1) Year
Spare parts and spare kits	Ninety (90) days

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#### Introduction

Congratulations on your purchase of D-Link DI-3660 Modular Multi-Service Access Router. D-Link DI-3660 router offers an inexpensive yet a complete Internetworking solution with Voice support for your Corporate office, Business or Enterprise.

#### Overview

Today LAN, WAN and Internet connectivity are being rapidly accepted as the most used media for business. A growing percentage of business transactions, including data & voice communications, are being carried on Intranets and the Internet. At the same time, LAN and WAN technologies are evolving rapidly to meet the ever growing demand for faster connections, higher capacity and more robust security with sophisticated policy controls. Interconnecting the company through Intranet and Internet is becoming a competitive necessity for SOHO businesses and Enterprise branch offices.

Such Enterprise & SOHO businesses also require solutions that provide reliable, secure, high-performance access to their private WANs and the Internet, with flexibility to upgrade to new services easily in the near future. Service providers are interested in meeting this demand for new network services, to capitalize on opportunities in the growing SOHO & Enterprise market.

D-Link DI-3660 modular router provides a cost-effective solution for medium-sized businesses and Enterprise branch offices. DI-3660 delivers a flexible, scalable, integrated data access solution supporting multiple types of WAN interfaces providing a tailored access solution for both data & voice.

The D-Link DI-3660 Internetwork Operating System, includes Routing, Firewall, and Virtual Private Network (VPN) functions (including GRE, L2TP) and provides IPSec (IP Security), thus guaranteeing the security of WAN network in the Internet environment.

For voice applications, DI-3660 routers supports 3 different modules including Foreign Exchange Station (FXS) interface which connects directly to a standard analog telephone, Foreign Exchange Office (FXO) interface allowing an analog connection to be directed at the PSTN's central office or to a station interface on a private branch exchange (PBX) and, Ear & Mouth (E&M) interface allowing analog connection to be directed at the E&M station on a private branch exchange (PBX).

#### **Key Features**

#### **Flexibility**

- Interchangeable WAN interface network modules enable easy additions or changes in WAN technologies without a forklift upgrade of the entire platform.
- Modular data and voice slots enable users to tailor data and voice services as needed
- Supports different network modules, such as Fast Ethernet, Asynchronous serial port, Sync/Async serial port, ISDN BRI, ISDN PRI/E1 etc.

#### Integrated voice and data networking

- Reduces long-distance toll charges by allowing the data network to carry interoffice voice and fax traffic.
- Works with existing handsets, key units, and PBXs, eliminating the need for a costly phone-equipment upgrade.
- Provides a path to migrate to IP telephony.

#### Security

• Support Firewall/VPN Function.

#### **Quality-Of-Service**

- Allocates WAN bandwidth to priority applications for improved performance.
- End-to-end quality of service (QoS).
- Policy Routing.

# **Product Specifications**

## **Hardware Features:**

are reatures.	
Feature	Description
Chassis	Rack mount 2U size
RISC Processor	Motorola MPC8240 at 200MHz
Memory	
EEPROM	512K Bytes
Flash memory	8~104M Bytes
SDRAM	64~128M Bytes
Physical interface	
Console port	RJ-45
-	RS-232 interface/Asynchronous serial DTE
Auxiliary port	RJ-45
Auxiliary port	RS-232 interface/Asynchronous serial DTE
Module slots	Six slots
iviodule slots	
N.A. alamatan	Supports network modules and voice modules
Network modules	DY 45
One-port 10/100M network module	RJ-45
	10/100M Fast Ethernet port
	Supports IEEE802.3, IEEE802.3u
Two-port 10/100M network module	RJ-45
	10/100M Fast Ethernet port
	Supports IEEE802.3, IEEE802.3u
	Each serial port provides serial connections to remote sites or
network module	legacy serial network devices such as Synchronous Data Link
	Control (SDLC).
	Supports V.24/V.28, RS232-D, V.35, RS422/RS449
8-port serial, async, and sync	Each serial port provides serial connections to remote sites or
(<128K) network module	legacy serial network devices such as Synchronous Data Link
	Control (SDLC).
	Supports V.24/V.28, RS232-D, V.35, RS422/RS449
8-port asynchronous serial network	RJ-45
module	Supports V.24/V.28, RS232-D
16-port asynchronous serial network	RJ-45
module	Supports V.24/V.28, RS232-D
One-port Channelized E1 network	One EI
module	One ISDN PRI (30B+D)
	Supports G.703 / G.704
Two-port Channelized E1 network	Two EI
module	One ISDN PRI (30B+D)
	Supports G.703 / G.704
Four-port Channelized E1 network	Four EI
module	One ISDN PRI (30B+D)
	Supports G.703 / G.704
Two-port FXS network module	RJ-11
	A Foreign Exchange Station (FXS) interface connects directly to
	a standard telephone, fax machine, or similar device

E t EVC	DT 11
Four-port FXS network module	RJ-11
	A Foreign Exchange Station (FXS) interface connects directly to
	a standard telephone, fax machine, or similar device
Two-port FXO network module	RJ-11
	Foreign Exchange Office (FXO) allows an analog connection to
	be directed at the PSTN's central office or to a station interface
	on a private branch exchange (PBX).
Four-port FXO network module	RJ-11
	Foreign Exchange Office (FXO) allows an analog connection to
	be directed at the PSTN's central office or to a station interface
	on a private branch exchange (PBX).
Two-port FXS + two-port FXO	RJ-11
network module	Two-port FXS + two-port FXO network module
Two-port E&M network module	RJ-11
	Supports 2 and 4 wire, E&M signaling types I, II, III, V
Four-port E&M network module	RJ-11
	Supports 2 and 4 wire, E&M signaling types I, II, III, V
One-port Ethernet + one-port serial,	RJ-45
async, and sync (T1/E1) + one-port	10Mbps Ethernet port Supports IEEE802.3
ISDN BRI network module	One serial port provides serial connections to remote sites or
	legacy serial network devices such as Synchronous Data Link
	Control (SDLC)
	Supports V.24/V.28, RS232-D X.21bit, V.35, RS422/RS449
	One ISDN BRI port (S/T interface, requires external NT-1)
	Supports ITU I.430, Q.921, Q.931
One-port Ethernet + two-port serial,	RJ-45
async, and sync (T1/E1) network	10Mbps Ethernet port Supports IEEE802.3
module	One serial port provides serial connections to remote sites or
	legacy serial network devices such as Synchronous Data Link
	Control (SDLC)
	Supports V.24/V.28, RS232-D X.21bit, V.35, RS422/RS449
Two-port serial, async, and sync	One serial port provides serial connections to remote sites or
(T1/E1) + one-port ISDN BRI	legacy serial network devices such as Synchronous Data Link
network module	Control (SDLC)
	Supports V.24/V.28, RS232-D X.21bit, V.35, RS422/RS449
	One ISDN BRI port (S/T interface, requires external NT-1)
	Supports ITU I.430, Q.921, Q.931
Four-port ISDN BRI S/T network	One ISDN BRI port (S/T interface, requires external NT-1)
module	Supports ITU I.430, Q.921, Q.931
	1 11 / / / /

#### **Software Features**

Feature	Description
Link layer protocol	Frame relay
	X.25
	LAPB
	PPP
	PPPoE
	HDLC

	SLIP
	ISDN (PRI/BRI)
	LLC2
	SDLC
	DLSW-SSP
	VLAN
Network layer protocol	ARP
	ARP Proxy
	DNS
	NAT
	IP Filtering
	ICMP
	IGMP
	DHCP client
	NHRP
Routing protocol	Static routing
	Policy-based routing
	RIP v1, v2
	OSPF v1, v2
	BGP-4
	DDR
	IP Multicasting
	DVMRP
	PIM-DM/SM
Security	
AAA	Radius
	PAP
	СНАР
	TACAS+
Firewall	ACL
	NAT
VPN	L2TP
	GRE
	IPSec
Quality of Service (QoS)	FIFO
	PQ
	CQ
	CBWFQ
	WFQ
	RED
	WRED
	RTS
	RSVP
Network reliability	HSRP
Ţ	Port backup

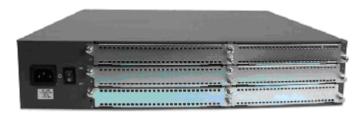
Management	SNMP v1, v2, v3
	RMON
	Telnet
Voice application	Voice over IP
	FAX over IP
	Н.323
	G.729/G.729A/G.729B
	G.723.1/G.723.1A
	G.726
	G.727
	G.711

# Mechanical design

#### Front panel



#### Rear panel



**Dimension:** 445mm x 410mm x 88mm (L x W x H)

#### **Power**

Feature	Detailed Description
Power input	110 ~ 264VAC
Power frequency	47 ~ 63Hz
Power dissipation	Max. 80W

#### **Environmental specifications**

Feature	Detailed Description
Operating Temperature	0 ~ 40°C
Storage Temperature	-20 ~ 65°C
Operating Humidity	10% ~ 85%, noncondensing

#### **Identifying External Components**

D-Link DI-3660 Router is shipped with standard configuration which includes a Console Port and an AUX Port.

#### The Table of the Feature of Standard Configured Port:

Name of Port	Feature	
Console Port	Rate 300bps—115200bps,RJ45 Connector,No LED	
AUX Port	Rate 1200bps—57600bps, RJ45 Connector, No LED	

Besides, there are 6 Network/Voice interface module slots, a power plug, a power ON/OFF switch, and ground pole and a vent for proper air circulation to avoid overheating.

#### Description of the Components on the Front Panel of the Router:



# **Description of the Components on the Rear Panel of the Router:**



The following table describes the components on the Router's panel:

No	Name	Description
1	Power	The device is powered ON
2	Console	Connected to the monitored terminal through this port to monitor and configure
3	AUX	Connected to asynchronous Modem through this port; and the port uses the specified communication cable.
4	Ready1	LED ON when system has self-checked successfully.
5	Active1	LED ON when interface card and module is inserted in the slot.
6	Ready2	LED ON system has self-checked successfully.
7	Active2	LED ON interface card and module is inserted in the slot.
8	Ready3	LED ON when system has self-checked successfully.
9	Active3	LED ON when interface card and module is inserted in the slot.
10	Ready4	LED ON when system has self-checked successfully.
11	Active4	LED ON when interface card and module is inserted in the slot.
12	Ready5	LED ON when system has self-checked successfully.
13	Active5	LED ON when interface card and module is inserted in the slot.
14	Ready6	LED ON when system has self-checked successfully.
15	Active6	LED ON when interface card and module is inserted in the slot.
16	SLOT1	Network interface modules slot.
17	SLOT2	Network interface modules slot.
18	SLOT3	Network interface modules slot.
19	SLOT4	Network interface modules slot.
20	SLOT5	Network interface modules slot.
21	SLOT6	Network interface modules slot.
22	Power Switch	Press upwards to turn the Router ON, press downwards to turn it OFF
23	Power Input	AC110~220V

#### **Router Installation**

#### Before you Begin

#### Warning: Only trained & qualified technician is allowed to install & maintain the equipment

This Chapter instructs you on how to install the D-Link DI-3660 Series Router.

The Chapter is divided into following sections:-

- Unpacking the Router.
- Safety Warnings and Recommendations.
- Tools and equipments required for installation.
- Installing the Router Case.
- Connecting Power to the Router.
- Connecting to the Console & Auxiliary Port of the Router.
- Connecting Network Modules.

#### **Unpacking the Router**

Before you proceed further, please check all items you received with your DI-3660 Router with this list to make sure the package is complete. The complete package should include:

- One DI-3660 Router.
- One 100~240V AC power cord.
- One Console Cable (DRC-0001) for console connection.
- Rack mount kit including six screws and two mounting brackets.
- Installation Guide.

If any item is found missing or damaged, please contact your local D-Link Reseller.

#### **Safety Warnings & Recommendations**

Follow these guidelines to ensure general safety:

- 1. Keep the environment clear, dry, safe and dust-free during and after installation.
- 2. Avoid pulling power supply cable and interface cable vigorously.
- 3. Ensure that the mains AC power is conditioned using a Standard Power Surge suppressor.
- 4. It is recommended to use a UPS for continuous uninterrupted power.
- 5. Wear safety glasses when working under any conditions that might be hazardous to your eyes.
- 6. Do not touch the uncovered telephone-network cable directly.
- 7. Do not insert telephone-network cable connector to the Ethernet/Fast Ethernet port.
- 8. Do not work on the system or connect or disconnect cables during periods of lightning activity.
- 9. Console, Auxiliary & Ethernet connection is RJ-45 based, therefore before plugging corresponding cable it is important that you properly check the cable type.
- 10. ISDN and Ethernet Cables are very similar to each other .It is important that you use the correct cable for each connection else, your router could get damaged.

#### Tools and equipments required for installation

Following are the tools required for router installation:-

- 1. Screwdriver
- 2. ESD-preventive wrist strap
- 3. Appropriate connecting cable (the cable required for each card)
- 4. Console cable
- 5. Power supply cable
- 6. Terminal

#### **Installing the Router Case**

The router can be placed on a desktop or mounted in a 19" rack, depending upon your need. Regardless of where you place the router make sure its cable jacks are accessible, LED indicators are visible and its ventilation holes are never blocked.

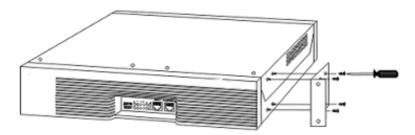
#### **Installing the Router Case on Table**

D-Link DI-3660 router may be placed on a smooth and secured table. Please check the access of power & communication cables to the installation workplace.

**Note:** Do not place any heavy object on the router, this may damage the router.

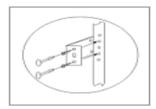
#### Installing the Router Case in a 19" Rack

D-Link DI-3660 router can be fixed in a 19" rack using brackets provided with the router. When locking the case, ensure the front panel of the router faces front. As illustrated below:

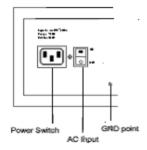


**Note:** The figure shown above is only the installation of one side; on the other side of the router, bracket will be installed on a corresponding location of the case.

After the bracket is installed, you can install the router on the rack, the operation is as followings:



#### **Connecting Power to the Router**



#### Recommended AC power socket

A Three-pin power socket with a neutral point connector or a special power socket for the computer is recommended. The neutral point of the power supply system in a building must be reliably grounded before connecting the AC power cord of the router. Normally, the neutral point of the power supply system in a building will have been grounded during the construction and wiring.

#### Connecting AC power cord

- 1. Confirm that the GND wire is correctly grounded.
- 2. Make sure that the power switch of the router is turned off, connect one end of the power cord to the AC input socket on the router's rear panel, and connect the other end to the AC outlet.
- 3. Switch the power switch of the router to ON position.
- 4. Check that the PWR LED on the front panel of the router is ON.

#### Connecting to the Console & Auxiliary Port of the Router

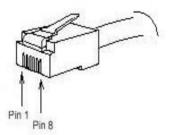
There is one Console port and one AUX port on D-Link DI-3660 Router. This section describes the features and usage of these two ports.

#### **Console Port**

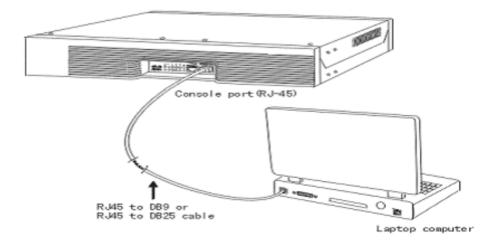
Transmission Rate supported is 1200bps-to-115200bps and it has a standard RJ45 Connector, Parity Check is optional, and has Flow Control. A dedicated Console cable, **DRC-0001**, provided with the router is used to connect this port to a terminal device like VT-100, or to the serial port of PC, and then use a terminal emulator (such as Windows Hyper terminal software) to configure & monitor the D-Link DI-3660 Router functions. The communication parameter of the serial port on a PC has to be set as: Rate: 9600bps rate, eight-bit data bits, one-bit stop bit, no Parity Check bit, and no flow control as shown in Figure:



The RJ-45 connector of the Console port is shown in the following figure, the male and female connectors are pin-to-pin corresponding and the pin numbers 1-8 start from left to right.



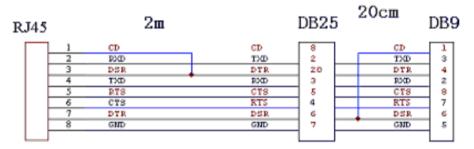
The connection between the Console port of D-Link DI-3660 Router and the terminal device or PC serial port is illustrated as below:



The pin of the Console port is defined in the following table:

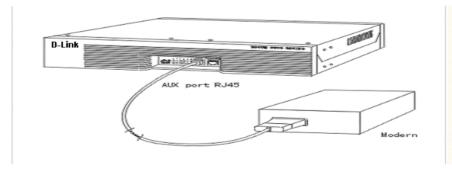
Sr. No.	Name	Description
1	CD	Carrier Detect
2	RXD	Receive
3	DSR	Data Send Ready
4	TXD	Transmit
5	RTS	Request to Send
7	DTR	Data Ready
8	SG	Signal Ground

The DRC-0001 cable is used to connect the Console port of D-Link DI-3660 Router with the external Console terminal equipment or serial port of PC. One end of the DRC-0001 cable is a standard RJ45 eight-pin connector & the other end is DB25 and DB9 connector. The RJ45 connector gets connected to the Console port of D-Link DI-3660 series router, the other end you can choose one from the DB25 or DB9 port according to your serial port on terminal or PC. The pin connection of the console cable DRC-0001 is showed in the following figure.

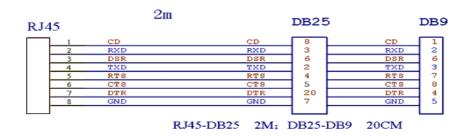


#### **AUX Port—Auxiliary Port**

The Transmission rate supported by AUX Port is 1200bps-to-115200bps and it has a standard RJ45 Connector, Parity Check is optional, and has Flow Control. AUX Port can be directly connected to an asynchronous modem for remote console configuration support or as a backup link. The communication parameter of the AUX port can be set as: Rate—115200bps, eight-bit data bits, one-bit stop bit, no Parity Check, no hardware Flow Control.



The auxiliary cable, DRC-0011 is used to connect the AUX Port with an external asynchronous modem. One end of the DRC-0011 cable is a standard RJ45 eight pin connector and the other end is DB25 and DB9 female connector. The RJ45 connector gets connected to the AUX Port of the router and on the other end you choose one from DB25 or DB9 according to the requirement of asynchronous serial port of Modem. The pin connection of the AUX cable DRC-0011 is showed in the following figure.



#### **Installing Network Modules**

This section describes how to install WAN & Voice Network Modules in D-Link DI-3660 routers.

Before performing any of the following procedures, ensure that power to the Router is OFF.

#### **Caution:**

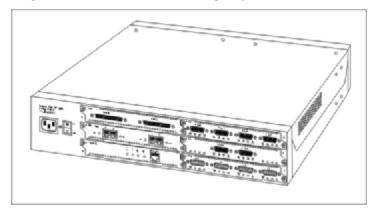
Do not insert the module into any slot of the router when power is ON or network cables are connected.

To install a Network Module in D-Link DI-3660 router, follow these steps:

- 1. Power OFF the router.
- 2. To avoid ESD voltage damaging the equipment, channel the router body to ground.
- 3. Remove all network interface cables, including telephone cables, from the rear panel.
- 4. Use a flat-blade screwdriver to remove the blank filler panel from the slot where you plan to install the card. Save the filler panel for possible future use.



5. Align the module with the guides in the chassis and slide it gently into the slot as shown in the following figure.



- 6. Push the module into place until the edge connector is securely seated in the connector on the motherboard. Ensure that each of the module's captive screws lines up with its corresponding hole in the chassis.
- 7. Secure the captive mounting screws into the holes of the chassis using a flat-blade screwdriver.
- 8. After completion of the hardware installation, begin the software configuration (refer Software Installation Guide).

#### **Network Module Combination Matrix**

For choosing the correct Network Module for WAN & Voice connectivity please refer the Network Module Matrix below.

No.	Description	Part Code	SLOT1~6
1	One-port 10/100Base-TX	DRM-1FE-TX	Yes
2	Two-port 10/100Base-TX	DRM-2FE-TX	Yes
3	One-port 10/100Base-FX (Multi-Mode)	DRM-1FE-FX	Yes
4	One-port 10/100Base-FX (Single-Mode)	DRM-1FE-FS	Yes
5	One-port Ethernet + two-port serial,		Yes
	Sync/Async (up to 2Mbps)	DRM-1E2T	
6	Two-port serial, async, and sync (up to		Yes
	2Mbps) + one-port ISDN BRI	DRM-2T1B	

7	One-port Ethernet + one-port serial, async, and sync (up to 2Mbps) + one-port ISDN BRI		Yes
8	Four-port ISDN BRI S/T Interface	DRM-4B-S/T	Yes
9	4-port serial, async, and sync (up to 2Mbps)	DRM-4T	Yes
10	8-port serial, async, and sync (<128Kbps)	DRM-8A/S	Yes
11	8-port asynchronous serial	DRM-8ASY	Yes
12	16-port asynchronous serial	DRM-16ASY	Yes
13	One-port channelized E1	DRM-1CE1	Yes
14	Two-port channelized E1	DRM-2CE1	Yes
15	Four-port channelized E1	DRM-4CE1	Yes
16	Two-port FXS (including DSP)	DRM-2FXS	Yes
17	Two-port FXO (including DSP)	DRM-2FXO	Yes
18	Two-port E&M (including DSP)	DRM-2E&M	Yes
19	Four-port FXS (including DSP)	DRM-4FXS	Yes
20	Four-port FXO (including DSP)	DRM-4FXO	Yes
21	Four-port E&M (including DSP)	DRM-4E&M	Yes
22	Two-port FXS + two-port FXO	DRM-2FXS&2FXO	Yes

## **Troubleshooting**

This chapter describes some troubleshooting techniques, incase of malfunctioning of DI-3660 router. After each description, we have provided some instructions to help you to diagnose and resolve the problem. If you are not able to locate source of problem, contact your local reseller or D-Link support center for further help.

The LED indicators indicate the current operation of the Router. The standard configuration indicators on the rear panel of the router case are described in the following table:-

No	Name	Description
1	Power	The router is powered ON.
2	Ready1	LED ON when system has self-checked successfully.
3	Active1 LED ON when there is interface card and module inserted in the slo	
4	Ready2 LED ON when system has self-checked successfully.	
5	Active2	LED ON when there is interface card and module inserted in the slot.
6	Ready3	LED ON when system has self-checked successfully.
7	Active3	LED ON when there is interface card and module inserted in the slot.
8	Ready4	LED ON when system has self-checked successfully.
9	Active4	LED ON when there is interface card and module inserted in the slot.
10	Ready5	LED ON when system has self-checked successfully.
11	Active5	LED ON when there is interface card and module inserted in the slot.
12	Ready6	LED ON when system has self-checked successfully.
13	Active6	LED ON when there is interface card and module inserted in the slot.

#### **Problem Powering Up the DI-3660 Router**

None of the LEDs are ON when you power up the router:-

- Check the AC mains power is turned ON.
- Check Router power switch is turned ON.
- Check whether the power cord is properly connected to the Router.

#### **Problem Configuring Router through Console port**

Nothing is displayed on terminal:-

- Check whether router is powered ON properly.
- Check whether the router console port is properly connected to PC serial port.
- Check whether Terminal communication program (HyperTerminal) is configured properly.

#### **Problems Connecting Network Module**

Router does not detect or reboots after inserting Network Module:-

- Confirm that the network module is properly inserted in the slot.
- Check whether LED indication is proper in the front panel w.r.t. slot.
- The WIC/VIC Interface card might be faulty. Turn OFF router immediately and consult your reseller.

#### Router Maintenance

This section mainly describes how to maintain DI-3660 router.

#### Warning:

- 1. Before you open the case, please ensure you have discharged the static on your body and Router is powered OFF. Before you perform any procedure, please read "Safety Warning".
- 2. Remove all power cables, network interface cables, including telephone cables, from the rear panel.

#### **Opening Router Case**

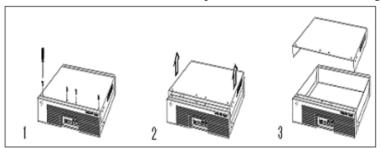
This part describes how to open the router's case, the tools needed and the operation process.

# Tools and equipments required for router maintenance, which are not included in the router's standard configuration, are:

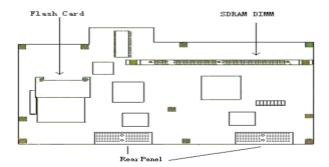
- 1. Screwdriver
- 2. Anti-static wrist strap

#### Follow the steps to open the cover:

- Step1: Make sure the Router is powered OFF (toggle the switch to OFF position), and remove the AC power plug
- Step2: Remove all the cables connected to the router's rear panel
- Step3: Use screwdriver to take off the screws (refer fig1 below), and keep the screws aside.
- Step4: Hold both sides of the router cover and take it out in the upward direction as shown in fig2 below



Step5: After you take off the router cover, place the cover safely. You will see the main-board as shown in the following figure:

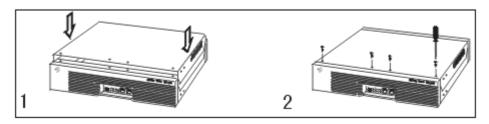


#### Note: After you take off the router cover, place it securely. Don't crush or impact the cover.

#### Close the Case

This section describes the steps of placing the router cover and closing the case.

Step1: Follow the arrows in figure 1 and put the cover by matching corresponding screw holes.



- Step2: Close the joint edge of the router cover as shown in fig2 above
- Step3: Drive the screws in and tighten them with the screwdriver
- Step4: Reinstall the router on the rack or the table
- Step5: After closing the router cover, you can connect all the cables

#### **Upgrade System Memory**

#### **SDRAM** Installation

This section describes how to upgrade the memory of DI-3660 Router.

- 1. Turn OFF the power supply switch of DI-3660 and remove the AC power plug
- 2. Follow the steps of "Open the case" to take off the router cover
- 3. Refer to the following figure to find the location of SDRAM DIMM slot

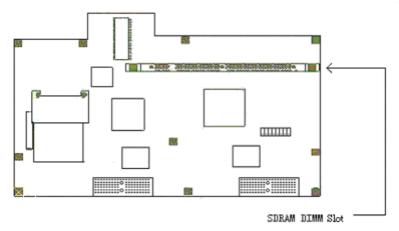
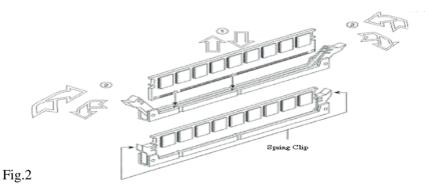


Fig. 1

**4.** Release the locking spring clips on both sides of SDRAM DIMM with your thumbs carefully (as shown in Fig.2 below). When SDRAM springs out of its slots, you can pull out the original SDRAM vertically (as shown in Fig.2).

Note: If you cannot pull out the SDRAM, check if it is locked by any other object, and then follow the steps above to try again.



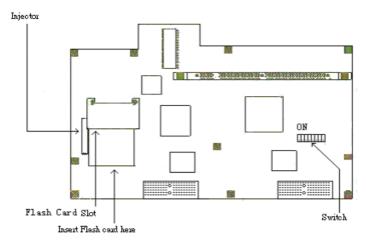
- 5. To insert new SDRAM into the SDRAM DIMM slot make the golden finger edge of the new SDRAM downwards as show in fig 2 above. Hold the top edge of the SDRAM with your forefingers and thumbs and insert it into the SDRAM DIMM slot vertically. The two notches of the SDRAM fit into the two bulges in the SDRAM DIMM slot (as shown in Fig.2).
- 6. Shut the locking spring clips on the both ends of SDRAM DIMM slot to fix the SDRAM (as shown in Fig.2)
- 7. You have finished the installation of SDRAM, please follow the steps of "Close the case" as shown in Router Maintenance Section.

#### **Upgrading FLASH Memory**

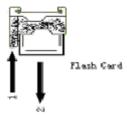
The standard configuration of FLASH in DI-3660 router is 8 Mb. If you want to upgrade it, you can insert Flash memory into the Flash Memory slot on the main-board of the router. The following steps instruct you how to upgrade the Flash memory.

- 1. Turn OFF the power supply switch of DI-3660 and remove the AC power plug
- 2. Follow the steps of "Open the case" to take off the router cover

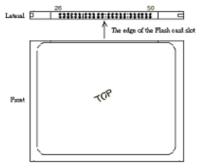
3. Refer to the following figure to find the location of Flash Memory slot and switch on DI-3660



4. If there is a Flash Card in the slot already, you should uninstall the existing Flash Card first. Push the spring handle of Flash Memory slot with your fingers as in the direction of arrow 1, and the Flash Card in the slot will spring out, then you can take out Flash Card in the direction of arrow 2;

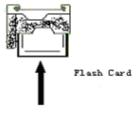


5. Identify the edge with the female connectors on the new Flash Card. Insert the Flash Card with this edge going first into the Flash memory slot (see the following figure below for side view of the Flash Card).



Note: If the Flash Card doesn't enter into the Flash memory receptacle, don't push it in by force. Take out Flash Card and try again with the other side upwards.

6. Push Flash Card into Flash memory receptacle horizontally as shown in the figure below:



- 7. Find the location of the switch in the figure showing the location of the Flash memory slot and put ON switch #2.
- 8. After you finish installation, please follow the steps of "Close the case" as shown in Router Maintenance Section.

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Registration Card
Print, type or use block letters.
Your name:Mr./Ms
Organization:Dept
Your title at organization:
Telephone: Fax:
Organization's full address:
Country: Date of purchase (Month/Day/Year) :
Product Product Serial * Product installed in type of * Product installed in
Model No. computer (e.g., Compaq computer serial No. 486)
(* Applies to adapters only)
Product was purchased from:
Reseller's name:
1.Where and how will the product primarily be used?  OHome OOffice OTravel OCompany Business OHome Business OPersonal Use 2. How many employees work at installation site?  OI employee O2-9 O10-49 O50-99 O100-499 O500-999 O1000 or more 3. What network protocol(s) does your organization use?  OXNS/IPX OTCP/IP ODECnet OOthers
6. What network medium/media does your organization use?
Fiber-optics Thick coax Ethernet Thin coax Ethernet 10BASE-T UTP/STP 100BASE-TX 100BASE-T4 100VGAnyLAN  Others
7. What applications are used on your network?
Desktop publishing Spreadsheet Word processing CAD/CAM Database management Accounting Others
8. What category best describes your company?
Aerospace Engineering Education Finance Hospital Legal Insurance/Real Estate Manufacturing Retail/Chainstore/Wholesale Government
VAR System house/company Transportation/Utilities/Communication Other
9. Would you recommend your D-Link product to a friend?
Yes No Don't know yet
10. Your comments on this product?

